IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
	)	
Gabriel Wechter et al.	)	Group Art Unit: 2121
	)	
Application No.: 10/693,965	)	Examiner: D. D. Dunn
	)	
Filed: October 28, 2003	)	Confirmation No.: 3644
	)	
For: METHOD AND SYSTEM FOR MANAGING A DISCOVERY-RELATED PROCESS IN A NETWORK	)	

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal is from the decision of the Examiner in the Final Office Action mailed January 2, 2008, having a period for response that extends through June, 2, 2008, based upon the Notice of Appeal filed April 2, 2008

Please charge the $510.00 fee for filing this Appeal Brief to Deposit Account No. 08-2025. The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 08-2025.

I. Real Party in Interest

The present application is assigned to Hewlett-Packard Company. Hewlett-Packard Company is the real party in interest, and is the assignee of Application No. 10/693,965.

II. Related Appeals and Interferences

None.

III. Status of Claims

Claims 1-22 were originally filed in the subject application. Claim 23 was added by an amendment. Claims 1-23 are currently pending, all of which stand rejected. Claims 1-23 are being appealed.

IV. Status of Amendments

None

V. Summary of Claimed Subject Matter Recited in Claims 1, 9, 15 & 23

Claims 1, 9, 15 and 23 encompass the exemplary embodiment shown in FIG. 1. FIG. 1 shows a method of managing a discovery-related process in a network (e.g., network 210 of FIG. 2). The method includes: identifying topology information of a network using a discovery-related process in an active mode (step 102); signaling a management process when the discovery-related process completes identification of the network's topology information (step 104); placing the discovery-related process from the active mode into a standby mode using the management process (step 106); monitoring to detect specified events in the network using the management process (step 108); forwarding the detected specified events to the discovery-related process (step 110); and placing the discovery-related process from the standby mode into the active mode when the detected specified events exceed a threshold.

The present application contains four independent claims: 1, 9, 15 and 23. A mapping of each of the independent claims to one or more instances of an exemplary embodiment described in the disclosure is set forth in the following table:

Claim 1. A method for managing a discovery-related process in a network, comprising:	
identifying topology information of the network using the discovery-related process in an active mode;	FIG. 1, 102; pp. 2-3, ¶ 0007
placing the discovery-related process from the active mode into a standby mode using a management process;	FIG. 1, 106; pp. 2-3, ¶ 0007
monitoring to detect specified events in the network using the management process and then forward a count of the detected specified events to the discovery-related process, and/or monitoring to detect arrival of a predetermined point in time; and	FIG. 1, 108, 110; pp. 2-3, ¶ 0007
placing the discovery-related process from the standby mode into the active mode when the count of the detected specified events exceeds a threshold and/or when the predetermined point in time arrives.	FIG. 1, 112; pp. 2-3, ¶ 0007
Claim 9. A system for managing a discovery-related process in a network, comprising:	FIG. 2, 202; pp. 4-5, ¶ 0010
means for identifying topology information of the network in an active mode;	FIG. 2, 208; pp. 4-5, ¶ 0010
means for placing the discovery-related process from the active mode into a standby mode, for detecting specified events in the network and forwarding a count of the detected specified events to the means for identifying, and/or for detecting arrival of a predetermined point in time;	FIG. 2, 206; pp. 4-5, ¶ 0010
wherein the means for identifying compares the detected specified events against a threshold and shifts from the standby mode into the active mode when the count of the detected specified events exceeds the threshold, and/or shifts from the standby mode into the active mode when arrival of the predetermined point time is detected.	Pp. 4-5, ¶ 0010-0015
Claim 15. A machine-readable medium comprising a computer program for causing a computer to perform:	
identifying topology information of the network using the discovery-related process in an active mode;	FIG. 1, 102; pp. 2-3, ¶¶ 0007, 0020
placing the discovery-related process from the active mode into a standby mode using a management process;	FIG. 1, 106; pp. 2-3, ¶¶ 0007, 0020

monitoring to detect specified events in the network using the management process and then forward a count of the detected specified events to the discovery-related process, and/or monitoring to detect arrival of a predetermined point in time; and	FIG. 1, 108, 110; pp. 2-3, ¶¶ 0007, 0020
placing the discovery-related process from the standby mode into the active mode when the count of the detected specified events exceeds a threshold and/or when the predetermined point in time arrives.	FIG. 1, 112; pp. 2-3, ¶¶ 0007, 0020
Claim 23. A method for managing a discovery-related process in a network, comprising:	
receiving topology information of the network from a discovery-related process in an active mode;	FIG. 1, 102; pp. 2-3, ¶ 0007
placing the discovery-related process from the active mode into a standby mode;	FIG. 1, 106; pp. 2-3, ¶ 0007
monitoring the network to detect changes with respect to the received topology information;	FIG. 1, 108, 110; pp. 2-3, ¶ 0007
accumulating a count of the detected changes in the network;	FIG. 1, 112; pp. 2-3, ¶ 0007, p. 11, ¶ 0020
periodically forwarding the count to the discovery-related process; and	FIG. 1, 112; pp. 2-3, ¶ 0007, p. 11, ¶ 0020
placing the discovery-related process from the standby mode into the active mode when the count exceeds a threshold and/or when a predetermined point in time arrives.	FIG. 1, 112; pp. 2-3, ¶ 0007

VI. Grounds of Rejection to be Reviewed on Appeal

(A) Whether claims 1-22 are patentable under 35 U.S.C. § 102(e) over U.S. Patent No. 6,941,350 to *Frazier et al.* ("*Frazier*").

(B) Whether claim 23 is patentable under 35 U.S.C. § 102(e) over U.S. Patent Application Publication No. 2004/0172467 by *Wechter et al.* ("*Wechter*").

VII. Argument

(A) Rejection of Claims 1-22 Under Section 102(e) Over *Frazier*

In order to properly anticipate Applicant's claimed invention under Section 102(e), each and every element of the claims in issue must be found, either expressly described or

under the principles of inherency, in a single prior art reference. (See M.P.E.P. § 2131 (8th Ed., rev. Aug. 2006).) Further, the identical invention must be shown in as complete detail as contained in the claim. (Id.) *Frazier* fails in these regards.

Frazier discloses a method for selecting a master network manager, wherein a first node shifts to a standby mode if it discovers another master subnet manager and/or a higher-priority node. (*See, e.g., Frazier*, abstract.) When a state machine 800 for the subnet manager starts, state machine 800 enters the discovering state S1 during which devices on the subnet are discovered. (*Frazier at* col. 11:24-66.) If a subnet manager having a higher priority is detected or a master subnet manager is detected, then state machine 800 shifts to a standby state S2. In standby state S2, the subnet manager may be placed into a non-active state S3 by the master subnet manager. A subnet manager in standby state S2 periodically polls the subnet for a response. If the master subnet manager responds to the poll, then state machine 800 remains in standby state S2. However, if the master subnet manager does not respond within the defined time out or after a predetermined number of retries, a state change occurs in which state machine 800 transitions from standby state S2 back to discovering state S1 to begin the discovery process again for selecting another master subnet manager.

(1) Claims 1-8

The Examiner apparently asserts that *Frazier's* discovering process, discovering state S1, standby state S2, and polling requests correspond to Applicant's claimed "discovery-related process," "active mode," "standby mode," and "specified events," respectively. In addition, the Examiner appears to assert the above-described process corresponds to Applicant's claimed "monitoring to detect specified events in the network using the management process" and "placing the discovery-related process from the standby mode into the active mode." Applicant disagrees. *Frazier* does not disclose or suggest "monitoring to detect specified events in the network using the management

process and then forward a count of the detected specified events to the discovery-related process," as recited in claim 1.

The method disclosed by *Frazier* polls a master subnet manager for a response. (*Frazier*, col. 11, ll. 24-66). If no response is received after a predetermined number of retries, subnet manager transitions from standby state S2 to discovering state. (*Id.* at col. 11, ll. 58-64.) That is, state machine 800 merely changes states after a certain number of polling requests. But *Frazier* does not disclose that the number of polling requests is "forwarded" to the discovering process or anywhere else. Accordingly, *Frazier* does not teach "forward[ing] a count of the detected specified events to the discovery-related process" (emphasis added), as recited in Applicant's claim 1.

The Examiner argues "'forwarding' is interpreted as placing into consideration" and that in *Frazier*, "specified events are taken into consideration by tracking the predetermined number, i.e., count, of tries. At which point, a state change occurs." (Final Office Action, p. 3, *sic*.) This interpretation is improper for several reasons.

The Examiner must give the Applicant's claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." (*In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); M.P.E.P. § 211.01(I).) "In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art." (*LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003), M.P.E.P. § 2173.01.III.)

In this application, Applicant has not assigned any special meaning to the term "forward." Thus, the term "forward" should be given its plain meaning consistent with Applicant's specification. The ordinary and customary meaning of a term may be evidenced by a variety of sources, including "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific

principles, the meaning of technical terms, and the state of the art." (*See* M.P.E.P. § 2173.01.III, *quoting Phillips v. AWH Corp.*, 415 F.3d 1303, 1314, 75 USPQ2d 1321, 1327 (Fed. Cir. 2005) (*en banc.*))

At the outset, Applicant notes that the Office Action provides no support for the Examiner's purported definition of "forwarding" and Applicant can find no basis for it. To the extent the Examiner may be relying on Official Notice of the definition, Applicant traverses any such reliance without providing documentary support. (*See* M.P.E.P. § 2144.03.A.)

The dictionary definition of "forward" is "to send on to a subsequent destination or address." (*The American Heritage® Dictionary of the English Language*, 4th Ed. Houghton Mifflin Company, 2004, <http://www.answers.com/topic/-forward> (accessed June 2, 2008).) The Examiner's purported definition of the term to mean "taken into consideration" does not comport with this or any definition of the term.

Moreover, the Examiner's interpretation is inconsistent with the interpretation that one of ordinary skill in the art would make in light of Applicant's specification. For example, paragraph 0012 of Applicant's specification states:

> The management process also reclaims system resources used by the discovery-related process, by restarting the discovery-related process and placing it into a standby-mode, where it can self-monitor for the need to process a fresh batch of data (or rediscover of the network). This can be performed, for example, by the management process detecting specified network events and reporting or forwarding them to the discovery-related process, which compares the detected events against one or more thresholds and when a threshold is exceeded, initiates a transition from the standby mode to the active mode by sending a message to the management process requesting the management process to awaken the processes needed for discovering the network. (Emphasis added.)

In light of Applicant's specification, it is respectfully submitted that one of ordinary skill in the art would interpret the term "forward" in Applicant's claim 1 consistent with the dictionary definition above.

For the reasons above, the Examiner's purported definition of "forwarding" is unsupported, inconsistent with the plain and ordinary meaning of the term, and inconsistent

with the interpretation that would be given to the term by an artisan in light of Applicant's specification. Accordingly, *Frazier* cannot be considered to anticipate "monitoring to detect specified events in the network using the management process and then forward a count of the detected specified events to the discovery-related process" (emphasis added), as recited in claim 1. Moreover, because *Frazier* does not anticipate the above-noted "forward[ing] a count of the detected specified events," the patent also cannot disclose "placing the discovery-related process from the standby mode into the active mode when the count of the detected specified events exceeds a threshold" (emphasis added), as recited in claim 1.

Because *Frazier* fails to anticipate the above-identified features recited in claim 1, *Frazier* cannot support a rejection of claim 1 under 35 U.S.C. § 102(e). Claim 1 is, therefore, patentable over *Frazier*.

Claims 2-8 depend from claim 1. Accordingly, *Frazier* cannot support a rejection of claims 2-8 under Section 102(e) for the same reasons set forth above with regard to claim 1. As such, claims 2-8 are also patentable over *Frazier*.

(2) Claims 9-22

Independent claims 9 and 15 recite subject matter similar to that recited in claim 1. For instance, claim 9 recites "means for placing the discovery-related process from the active mode into a standby mode, for detecting specified events in the network and forwarding a count of the detected specified events to the means for identifying, and/or for detecting arrival of a predetermined point in time" (emphasis added). Accordingly, claims 9 and 15 are patentable under Section 102(e) over *Frazier* the same reasons as given above for claim 1.

Claims 10-14 and 16-22 depend from claims 9 and 15. Thus, due to their corresponding dependence from claims 9 and 15, claims 10-14 and 16-22 are patentable under Section 102(e) over *Frazier* for the same reasons as claims 9 and 15.

B. Rejection of Claim 23 Under 35 U.S.C. § 102(e) Over *Wechter*

Applicant's claim 23 recites, *inter alia*, "A method for managing a discovery-related process in a network, comprising ... placing the discovery-related process from the active mode into a standby mode ... and placing the discovery-related process from the standby mode into the active mode when the count exceeds a threshold and/or when a predetermined point in time arrives." *Wechter* cannot support a rejection of claim 23 under Section 102(e) because the publication does not disclose, at least, these features of claim 23.

Wechter discloses a method for detecting changes in a network and initiating discovery of the network's topology when a number of detected changes in the network exceeds a threshold. (*Wechter*, p. 1, ¶ 0002.) The Examiner apparently asserts that *Wechter*'s rediscovery check module 114 corresponds to Applicant's claimed "discovery-related process." (Office Action, p. 7, *citing Wechter*, ¶ 0018, ll. 1-7.) However, *Wechter* does not disclose that the rediscovery check module is "plac[ed] ... from [an] active mode into a standby mode" or "plac[ed] ... from the standby mode into the active mode when the count exceeds a threshold and/or when a predetermined point in time arrives," as recited in Applicant's claim 23.

The Office Action states, "time since last discovery operation implies that an active mode, upon completion, will fall into a standby mode." (Final Office Action, p. 7, emphasis added.) Applicant disagrees. *Wechter* neither discloses nor implies anything with regard to a "standby mode," as recited in claim 23.

Rediscovery check module 114 monitors the number of detected changes in topology or configuration. (*Wechter*, p. 1, ¶¶ 0006, 0008; FIG. 2.) When rediscovery check module 114 detects that a threshold has been exceeded, it notifies bridge module 108, which initiates discovery of the network's topology. (*Wechter*, p. 1, ¶¶ 0006, 0008; FIG. 2.) However, *Wechter* does not disclose that rediscovery check module 114 is "plac[ed] ... from

[an] active mode into a standby mode." Indeed, this interpretation is contrary to rediscovery check module 114's stated role of monitoring changes in the network. For instance, paragraph 0018, *Wechter* discloses:

> The rediscovery check module 114 can trigger itself ... at periodic intervals ... to check the count of changes or delta events in the network against the threshold. In an exemplary embodiment, the rediscovery check module 114 can obtain both the count value and the threshold value from the network table 122, and send an alert to the bridge module 108 when the threshold is exceeded. If a network topology discovery operation is already in progress, or if delta or change-based discovery is not configured (for example, when deactivated by a user via the GUI 120) the rediscovery check module 114 can omit alerting the bridge module 108. The rediscovery check module 114 can also update and read handshaking variable(s) value(s) via the link 148 and the database 116 (including for example the database table 122).

Thus, rediscovery module is active throughout the process disclosed by *Wechter*, including a topology discovery operation is occurring. Accordingly, rediscovery check module 114 cannot be considered "plac[ed] ... into a standby mode."

The Examiner may have intended to assert that the entire process illustrated in FIG. 2 of *Wechter* corresponds to the claimed "discovery-related process" since this process includes periods during which discovery of network topology is not occurring. (*Wechter,* FIG. 2, steps 202-206.) However, for the reasons already discussed above, the rediscovery check module 114, monitors changes in the network throughout the process. In addition, *Wechter* states that bridge module 108 provides a persistent count of change events in the network. (*Id.* at p. 3, ¶ 0016.) As such, the process illustrated in FIG. 2 also cannot be considered to be "plac[ed] ... from [an] active mode into a standby mode," as recited in claim 23.

For the reasons above, *Wechter* does not anticipate "placing the discovery-related process from the active mode into a standby mode" and "placing the discovery-related process from the standby mode into the active mode when the count exceeds a threshold and/or when a predetermined point in time arrives," as recited in claim 23. *Wechter*, therefore, cannot support a rejection of claim 23 under Section 102(e) and claim 23 is patentable over the publication.

VIII. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

IX. Evidence Appendix

None.

X. Related Proceedings Appendix

None.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

The Appealed Claims

1. (Previously presented) A method for managing a discovery-related process in a network, comprising:

identifying topology information of the network using the discovery-related process in an active mode;

placing the discovery-related process from the active mode into a standby mode using a management process;

monitoring to detect specified events in the network using the management process and then forward a count of the detected specified events to the discovery-related process, and/or monitoring to detect arrival of a predetermined point in time; and

placing the discovery-related process from the standby mode into the active mode when the count of the detected specified events exceeds a threshold and/or when the predetermined point in time arrives.

2. (Original) The method of Claim 1, comprising:

signaling the management process when the discovery-related process completes identification of the network's topology information.

3. (Original) The method of Claim 1, wherein the discovery-related process transits from the active mode to the standby mode in an ordered sequence.

4. (Original) The method of Claim 1, comprising:

the discovery-related process identifying the network's topology information in response to the discovery-related process transiting from the standby mode to the active mode.

5. (Original) The method of Claim 4, wherein the discovery-related process performing identification of the network's topology information in response to the discovery-related process transiting from the standby mode to the active mode comprises:

restarting initial subprocesses of the discovery-related process;

providing network topology information discovered by the initial subprocesses to inactive subprocesses of the discovery-related process; and

the inactive subprocesses becoming active in response to the provided network topology information.

6. (Original) The method of Claim 5, wherein the initial subprocesses are restarted in an ordered sequence.

7. (Original) The method of Claim 4, comprising:

repeating the placing the discovery-related process from the active mode into the standby mode using the management process, after the discovery-related process identifies the network's topology information in response to the discovery-related process transiting from the standby mode to the active mode.

8. (Original) The method of Claim 1, wherein the discovery-related process in the standby mode compares the detected specified events to the threshold, and initiates a transition from the standby mode to the active mode when the detected specified events exceed the threshold.

9. (Previously presented) A system for managing a discovery-related process in a network, comprising:

means for identifying topology information of the network in an active mode;

means for placing the discovery-related process from the active mode into a standby mode, for detecting specified events in the network and forwarding a count of the detected specified events to the means for identifying, and/or for detecting arrival of a predetermined point in time;

wherein the means for identifying compares the detected specified events against a threshold and shifts from the standby mode into the active mode when the count of the detected specified events exceeds the threshold, and/or shifts from the standby mode into the active mode when arrival of the predetermined point time is detected.

10. (Original) The system of Claim 9, wherein the means for identifying signals the means for placing, detecting and forwarding when the means for identifying completes identification of the network's topology information.

11. (Original) The system of Claim 9, wherein the means for identifying shifts from the active mode to the standby mode in an ordered sequence.

12. (Original) The system of Claim 9, wherein the means for identifying identifies the network's topology information in response to shifting from the standby mode to the active mode.

13. (Original) The system of Claim 9, wherein the means for identifying in the standby mode compares the detected specified events to the threshold, and initiates a shift from the standby mode to the active mode when the detected specified events exceed the threshold.

14. (Original) The system of Claim 13, wherein the means for placing, detecting and forwarding shifts the means for identifying into the standby mode and the means for identifying initiates a shift into the active mode when the detected specified events exceed the threshold, in a repeating cycle.

15. (Previously presented) A machine-readable medium comprising a computer program for causing a computer to perform:

identifying topology information of the network using the discovery-related process in an active mode;

placing the discovery-related process from the active mode into a standby mode using a management process;

monitoring to detect specified events in the network using the management process and then forward a count of the detected specified events to the discovery-related process, and/or monitoring to detect arrival of a predetermined point in time; and

placing the discovery-related process from the standby mode into the active mode when the count of the detected specified events exceeds a threshold and/or when the predetermined point in time arrives.

16. (Original) The medium of Claim 15, comprising a computer program for causing a computer to perform:

signaling the management process when the discovery-related process completes identification of the network's topology information.

17. (Original) The medium of Claim 15, wherein the discovery-related process transits from the active mode to the standby mode in an ordered sequence.

18. (Original) The medium of Claim 15, comprising a computer program for causing a computer to perform:

the discovery-related process identifying the network's topology information in response to the discovery-related process transiting from the standby mode to the active mode.

19. (Original) The medium of Claim 18, wherein the discovery-related process performing identification of the network's topology information in response to the discovery-related process transiting from the standby mode to the active mode comprises:

restarting initial subprocesses of the discovery-related process;

providing network topology information discovered by the initial subprocesses to inactive subprocesses of the discovery-related process; and

the inactive subprocesses becoming active in response to the provided network topology information.

20. (Original) The medium of Claim 19, wherein the initial subprocesses are restarted in an ordered sequence.

21. (Original) The medium of Claim 18, comprising a computer program for causing a computer to perform:

repeating the placing the discovery-related process from the active mode into the standby mode using the management process, after the discovery-related process identifies

the network's topology information in response to the discovery-related process transiting from the standby mode to the active mode.

22. (Original) The medium of Claim 15, wherein the discovery-related process in the standby mode compares the detected specified events to the threshold, and initiates a transition from the standby mode to the active mode when the detected specified events exceed the threshold.

23. (Previously presented) A method for managing a discovery-related process in a network, comprising:

receiving topology information of the network from a discovery-related process in an active mode;

placing the discovery-related process from the active mode into a standby mode;

monitoring the network to detect changes with respect to the received topology information;

accumulating a count of the detected changes in the network;

periodically forwarding the count to the discovery-related process; and

placing the discovery-related process from the standby mode into the active mode when the count exceeds a threshold and/or when a predetermined point in time arrives.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None